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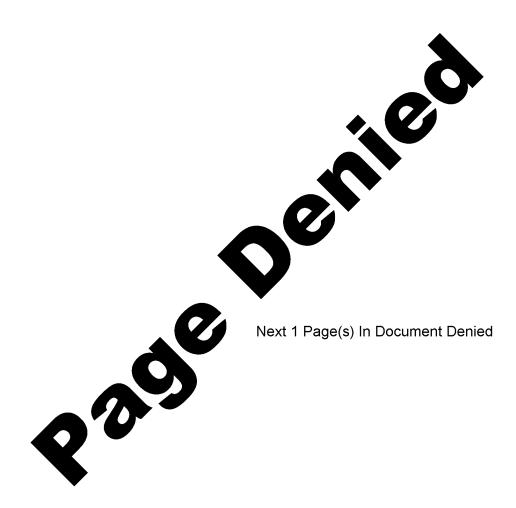
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Attachment to Z-12720/83 NPIC/IEG 22 JULY 1983

## MODIFIED TWIN DISH KOMSOMOLSK, USSR (SWN)

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- 1. SIGNIFICANCE: A MODIFIED VERSION OF THE STANDARD TWIN DISH TROPOSCATTER RELAY SYSTEM HAS BEEN DEPLOYED IN THE SOVIET FAR EAST. (SWN)
- 2. REMARKS: ANALYSIS OF THE NEWEST SOVIET TROPOSCATTER RELAY SYSTEM, NPIC INTERIM DESIGNATOR UL-EL-01, INDICATES IT IS A SECOND-GENERATION VERSION OF THE STANDARD TWIN DISH (R-408) SYSTEM WHICH HAS BEEN IN SERVICE SINCE 1960. (SWN)

FIELD TESTING OF THE MODIFIED TWIN DISH WAS CONDUCTED AT ULAN UDE 9TH RVGK SIGNAL BDE AL-3 FROM MID-DECEMBER 1982 UNTIL MARCH 1983. A MODIFIED TWIN DISH STATION IS COMPRISED OF 13 VEHICLES AND TRAILERS RATHER THAN THE EIGHT VEHICLES AND TRAILERS OF THE OLDER SYSTEM (GRAPHIC 1). SINCE MARCH, EIGHT MODIFIED TWIN DISH STATIONS HAVE BEEN STORED IN AN OPEN VEHICLE PARK NEXT TO A TWIN PLATE BATTALION AT KOMSOMOLSK NA AMURE ARMY BKS. (SWN)

BOTH THE NEW AND OLD VERSIONS HAVE TWO 10-METER PARABOLIC DISHES THAT ARE GROUND MOUNTED ON A V-BAR LATTICE MAST WITH TWO LATTICE SUPPORT ARMS. HOWEVER, THERE ARE STRUCTURAL, MOBILE, AND OPERATIONAL DEPLOYMENT DIFFERENCES BETWEEN THE TWO SYSTEMS. FIRST, THE MODIFIED TWIN DISH ANTENNA HAS A SOLID, 5.3-METER CENTER RING WITH A MESH OUTER RING COMPOSED OF 18 SEGMENTS. BY CONTRAST, THE STANDARD TWIN DISH ANTENNA IS COMPLETELY MESH CONSTRUCTED WITH A TWO-RUNG-LADDER-SHAPED DESIGN IN ITS CENTER RING. SECONDLY, THE NEW SYSTEM HAS IMPROVED TRAFFICABILITY SINCE IT USES NEWER AND MORE VERSATILE URAL-375 TRUCKS INSTEAD OF THE ZIL-157 TRUCKS OF THE OLDER SYSTEM. FINALLY, WHEN THE MODIFIED TWIN DISH IS OPERATIONALLY DEPLOYED, ITS VEHICLE LAYOUT PATTERN CLOSELY RESEMBLES THAT OF THE TWIN PLATE STATION (GRAPHIC 2). (SWN)

ANALYST'S COMMENTS -- NSA HAS PROPOSED THIS SYSTEM BE NAMED THE TWIN DISH B. HOWEVER, UNTIL THE OFFICIAL NAME IS DESIGNATED, NPIC REPORTING WILL USE MODIFIED TWIN DISH RATHER THAN UL-EL-01. (SWN)

These notes have been prepared for briefing purposes only and should not be used for detailed analytical work. Their use should be restricted to the particular briefing board(s) they were prepared for and must be considered valid only for the reporting period as indicated by the date of issue.

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